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EXAMINER	
SHERRER, C	

ART UNIT	PAPER NUMBER
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DATE MAILED: 04/27/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☒ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1 to 28 are pending in the application.
   Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1 to 23 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☒ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☒ been filed in parent application, serial no. 08/194,530; filed on 2/10/94.
13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

Part III DETAILED ACTION

Election/Restriction

1. Upon consideration the restriction made in the parent case, 08/194,530, is withdrawn.

Priority

2. Receipt is acknowledged of papers, in the parent case, 08/194,530, submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

3. If applicant desires priority under 35 U.S.C. § 120 based upon a parent application, specific reference to the parent application must be made in the instant application. If a parent application has become abandoned, the expression "abandoned" should follow the filing date of the parent application.

Specification

4. The Abstract of the Disclosure is objected to because it is in the form of two paragraphs. Correction is required. See M.P.E.P. § 608.01(b).

5. To insure proper consideration, applicant should provide the examiner with a copy of the foreign art and articles cited in the specification because it is not readily available to the examiner.

6. The disclosure is objected to because of the following informalities:

a. The title of the invention should be removed from the page on which the Abstract is printed;

b. The word "grinded" should be replaced with the word ground wherever it appears in the specification;

c. On page 15, line 6, "Examples" should be changed to Example. Appropriate correction is required.

7. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an adequate written description of the invention, and failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.

8. It is unclear, in the second method of obtaining a hop extract (see Example 2 of the specification), how the first and second separations are effected, e.g., by liquid/liquid or gas/liquid phase separation, etc.

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37

C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01(l). Correction of the following is required:

The specification does not recite that the pressure can be higher than 100 kg/cm^2 but rather "greater than 100 kg/cm^2 but less than 400 kg/cm^2" (see page 10, lines 8 to 10). See M.P.E.P. §§ 706.03(n) and 706.03(z).

Claim Rejections - 35 USC § 112

10. Claims 2, 4 and 6 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

11. Claims 9 to 12, 15 to 18, 21 to 23 and 26 to 28 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. There is no antecedent basis for the phrase "the step of the wort boiling" or "the whirlpool rest step" found in the claims.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1 and 3 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Vitzthum et al. (U.S. Pat. No. 4,204,409.)

15. Vitzthum et al. disclose the production of hop extracts whereby air dried hops are mixed with supercritical CO_2 at extraction pressures of "above its critical pressure (about 73 atmospheres". This process liberates "the entire soft resin portion and the essential oils of the hops, but less than 1% of the hard resin portion" (col. 3, lines 19 to 23.)

16. In Example 1 it is shown where the extraction pressure is 315 atmospheres and the separation pressure is 67 atmospheres.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

18. Claims 2 and 4 are rejected under 35 U.S.C. § 103 as being unpatentable over Vitzthum et al. in view of Wheldon et al. (U.S. Pat. No. 4,282,259.)

19. Vitzthum et al. show that which is cited above. Vitzthum et al. do not disclose the separation of the hop extract into different fractions.

20. Wheldon et al. disclose a process whereby hop extracts are produced by subjecting the hop material to the solvent action liquid CO_2. The action extracts the hop acids and oils from the hop material.

21. The extract can then be separated into two fractions; a hop oil fraction and a hop acid fraction. The hop oil fraction is obtained in the secondary pathway of the heat exchanger where its concentration is high due to its higher solubility (as opposed to the hop acids) in the liquid CO_2 (col. 4, lines 52 to 65.)

22. Wheldon et al. utilize the CO_2 at below critical pressures to reduce the expense of the plant and the extraction of the chlorophyll from the hops.

23. To separate the hop extract of Vitzthum et al. into the two fractions as done by Wheldon et al. would have been obvious to one of ordinary skill in the art since it is useful to have an extract that has a high concentration of hop oils.

24. Claims 5 to 28 are rejected under 35 U.S.C. § 103 as being unpatentable over Vitzthum et al. in view of Wheldon et al. and in further view of Todd Jr. et al. (U.S. Pat. No. 4,647,464.)

25. Vitzthum et al. in view of Wheldon et al. show that which is cited above. They do not show however the recombination of the hop extract with the hop residue.

26. Todd Jr. et al. teach the absorption of a hop oil extract onto fumed silicon dioxide to reduce the amount of aroma which is lost during the boiling of the wort, which later shall be fermented to produce a finished beer. Furthermore, after the hop extract has diffused into the wort, the fumed silicon dioxide will act as a filter aid.

27. It is considered that applicants mix their hop extract with their hop residue to obtain a product which functions in the same manner as that of Todd Jr. et al.

28. It would have been obvious to one of ordinary skill in the art to absorb the hop extract onto a carrier such as a hop residue (to function as a carrier as does the fumed silicon dioxide) since the product will reduce the amount of hop aroma lost during the heating phases of beer production. Furthermore, the claimed amounts at which applicants mix their hop extract with their extract residue are considered to posses no patentable significance since it is up to the whim of the beer maker to

decide the amount of hop aroma that his final product will possess.

29. In another respect it is considered that applicants are merely adding several process steps to the beer making process which serve no function. Specifically, it is seen that applicants are separating the hop material into a hop extract and an extract residue and then recombining them to produce essentially what they started with.

30. Additionally, it would have been obvious to one of ordinary skill in the art to produce the worts and their associated beers as claimed by applicants (i.e., heating temperatures and times) since it is well known how and why the heating time and temperature of the wort is affected.

Conclusion

31. No claim is allowed.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Sherrer whose telephone number is (703) 308-3847. The examiner can normally be reached on Monday through Friday from 8:00 to 4:30.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Czaja, can be

reached on (703)-308-3852. The fax phone number for this Group is (703)-305-3602.

34. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

DONALD E. CZAJA
SUPERVISORY PATENT EXAMINER
GROUP 130

Curt Sherrer
April 26, 1995